

CLAIMS

What is claimed is:

- 5 1. A multimedia system comprises:

multimedia server operably coupled to receive a plurality
of channels of a multimedia source, wherein the multimedia
server includes:

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tuning module operably coupled to receive the
plurality of channels and to select a set of channels
from the plurality of channels based on a set of
channel select commands that is derived from select
requests;

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channel mixer operably coupled to mix the set of
channels into a stream of channel data; and

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transceiving module operably coupled to transmit the
stream of channel data on to a communication path and
to receive the select requests; and

client module that produces the select requests for at least one of a plurality of clients, wherein the at least one of the plurality of clients is operably coupled to receive at least a portion of the stream of channel data,

5 wherein the client module includes:

selection module operable to produce at least one of the select requests; and

10 network interface controller operably coupled to transmit the at least one of select requests to the multimedia server and to receive the stream of channel data via the communication path.

15 2. The multimedia system of claim 1, wherein the plurality of clients comprises at least one of: a computer, a laptop computer, a personal digital assistant, a video telephone, a digital telephone, a cellular telephone, a monitor, a television, a high definition
20 television, printer, and a facsimile machine.

3. The multimedia system of claim 1, wherein the multimedia server further comprises:

control module operably to the tuning module, the channel mixer, and the transceiving module, wherein the control module interprets the select requests to produce the set of channel select commands, wherein the control module

5 facilitates formatting the stream of channel data for transmission via the transceiving module, and wherein the control module facilitates deformatting of the select requests.

10 4. The multimedia system of claim 3, wherein the communication path comprises at least one of:

wireline connection, wherein the stream of channel data and the select requests are transceived via the wireline

15 connection utilizing a type of transceiving that includes at least one of: time division multiplexing, frequency division multiplexing, pulse code modulation, amplitude shift keying, phase shift keying, quadrature phase shift keying, quadrature amplitude modulation, carrier sense
20 multi-access (CSMA), CSMA with collision avoidance, and CSMA with collision detection;

transmit wireline connection, wherein the stream of channel data is transmitted via the transmit wireline connection

utilizing a type of transmission that includes at least one of: time division multiplexing, frequency division multiplexing, pulse code modulation, amplitude shift keying, phase shift keying, quadrature phase shift keying, quadrature amplitude modulation, carrier sense multi-access (CSMA), CSMA with collision avoidance, and CSMA with collision detection;

receive wireline connection, wherein the select requests are received via the receive wireline connection utilizing a type of reception that includes at least one of: time division multiplexing, frequency division multiplexing, pulse code modulation, amplitude shift keying, phase shift keying, quadrature phase shift keying, quadrature amplitude modulation, carrier sense multi-access (CSMA), CSMA with collision avoidance, and CSMA with collision detection;

radio frequency path, wherein the stream of channel data and the select requests are transceived via the radio frequency path utilizing the type of transceiving;

transmit radio frequency path, wherein the stream of channel data is transmitted via the transmit radio frequency path utilizing the type of transmission;

receive radio frequency path, wherein the select requests are received via the receive radio frequency path utilizing the type of reception;

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infrared path, wherein the stream of channel data and the select requests are transceived via the infrared path utilizing the type of transceiving;

10 transmit infrared path, wherein the stream of channel data is transmitted via the transmit infrared path utilizing the type of transmission; and

15 receive infrared path, wherein the select requests are received via the receive infrared path utilizing the type of reception.

5. The multimedia system of claim 3, wherein the control module further comprises:

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host processor, external I/C bus, host memory, memory bridge interoperably coupled to provide server control operations, wherein the server control operations include:

interpreting the select requests to produce the set of
channel select commands; and

coordinating the mixing of the set of channels, formatting
of the stream of channel data and transmitting the

5 formatted channel data, such that a client of the plurality
of clients receives appropriate requested data.

6. The multimedia system of claim 5, wherein the control
module further comprises:

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hard drive operably coupled to store at least a portion of
the stream of data.

7. The multimedia system of claim 3, wherein the control
15 module further comprises:

means for processing client access privileges for each of
the plurality of clients.

20 8. The multimedia system of claim 1, wherein the
transceiving module further comprises:

an analog multiplexor for converting the stream of channel
data into analog signals, wherein the analog signals are

transmitted to the at least one of the plurality of clients.

9. The multimedia system of claim 1, wherein the
5 multimedia server further comprises:

second transceiving module operably coupled to transmit the stream of channel data via a second communication path.

10 10. The multimedia system of claim 1, wherein the set of channel select commands comprises at least one of:

audio channel select;

video channel select;

15 audio source;

video source;

volume adjust;

picture quality settings and adjustments;

displaying restrictions;

20 purchase requests;

picture-in-picture activation and deactivation;

picture-in-picture channel select;

video blanking; and

audio muting.

11. The multimedia system of claim 1, wherein the transceiving module further comprises:

- 5 encoder operably coupled to encode the stream of data prior to transmitting the stream of channel data, wherein the encoder encodes the stream of data based on at least one of: multilevel encoding; non return to zero (NRZ) encoding; Manchester encoding; block encoding; and
- 10 nB/mB encoding, where $n < m$.

12. A multimedia system comprises:

multimedia server operably coupled to receive data from a plurality of multimedia sources and to provide a stream of channel data from channels associated with the plurality of multimedia sources based on a set of channel select commands wherein the set of channel select commands are derived from select requests; and

10 a plurality of client modules operably coupled to the multimedia server to provide the select requests, wherein at least some of the plurality of client modules are operably coupled to a corresponding one of a plurality of clients, and wherein each of the corresponding ones of the plurality of clients displays at least a portion of the stream of channel data, wherein the at least a portion of the stream of channel data is based on at least one of the set of channel select commands provided to the multimedia server by an affiliated one of the at least some of the
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20 plurality of client modules.

13. The multimedia system of claim 12, wherein the multimedia server comprises:

tuning module operably coupled to receive the channels from the plurality of multimedia sources and to select a set of channels based on the set of channel select commands;

- 5 channel mixer operably coupled to mix the set of channels into the stream of channel data;

transceiving module operably coupled to transmit the stream of channel data on to a communication path and to receive
 10 the select requests; and

control module operably to the tuning module, the channel mixer, and the transceiving module, wherein the control module interprets the select requests to produce the set of
 15 channel select commands, wherein the control module facilitates formatting the stream of channel data for transmission via the transceiving module, and wherein the control module facilitates deformatting of the select requests.

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14. The multimedia system of claim 13, wherein each of the plurality of client modules comprises:

selection module operable to produce at least one of
the select requests; and

transmitting module operably coupled to the

5 communication path to transmit the at least one of the
select requests to the multimedia server.

15. The multimedia system of claim 13, wherein the
communication path comprises at least one of:

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wireline connection, wherein the stream of channel data and
the select requests are transceived via the wireline
connection utilizing a type of transceiving that includes
at least one of: time division multiplexing, frequency
15 division multiplexing, pulse code modulation, amplitude
shift keying, phase shift keying, quadrature phase shift
keying, quadrature amplitude modulation, carrier sense
multi-access (CSMA), CSMA with collision avoidance, and
CSMA with collision detection;

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transmit wireline connection, wherein the stream of channel
data is transmitted via the transmit wireline connection
utilizing a type of transmission that includes at least one
of: time division multiplexing, frequency division

multiplexing, pulse code modulation, amplitude shift keying, phase shift keying, quadrature phase shift keying, quadrature amplitude modulation, carrier sense multi-access (CSMA), CSMA with collision avoidance, and CSMA with

5 collision detection;

receive wireline connection, wherein the select requests are received via the receive wireline connection utilizing a type of reception that includes at least one of: time

10 division multiplexing, frequency division multiplexing, pulse code modulation, amplitude shift keying, phase shift keying, quadrature phase shift keying, quadrature amplitude modulation, carrier sense multi-access (CSMA), CSMA with collision avoidance, and CSMA with collision detection;

15 radio frequency path, wherein the stream of channel data and the select requests are transceived via the radio frequency path utilizing the type of transceiving;

20 transmit radio frequency path, wherein the stream of channel data is transmitted via the transmit radio frequency path utilizing the type of transmission;

receive radio frequency path, wherein the select requests are received via the receive radio frequency path utilizing the type of reception;

- 5 infrared path, wherein the stream of channel data and the select requests are transceived via the infrared path utilizing the type of transceiving;

- 10 transmit infrared path, wherein the stream of channel data is transmitted via the transmit infrared path utilizing the type of transmission; and

- 15 receive infrared path, wherein the select requests are received via the receive infrared path utilizing the type of reception.

16. The multimedia system of claim 13, wherein the control module further comprises:

- 20 host processor, external I/C bus, host memory, memory bridge interoperably coupled to provide server control operations, wherein the server control operations include: interpreting the select requests to produce the set of channel select commands; and

coordinating the mixing of the set of channels, formatting of the stream of channel data and transmitting the formatted channel data, such that a client of the plurality of clients receives appropriate requested data.

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17. The multimedia system of claim 16, wherein the control module further comprises:

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hard drive operably coupled to store at least a portion of the stream of data.

18. The multimedia system of claim 13, wherein the control module further comprises:

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means for processing client access privileges for each of the plurality of clients.

19. The multimedia system of claim 13, wherein the transceiving module further comprises:

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encoder operably coupled to encode the stream of data prior to transmitting the stream of channel data, wherein the encoder encodes the stream of data based on at least one

of: multilevel encoding; non return to zero (NRZ) encoding; Manchester encoding; block encoding; and nB/mB encoding, where $n < m$.

of: multilevel encoding; non return to zero (NRZ) encoding; Manchester encoding; block encoding; and nB/mB encoding, where $n < m$.

20. A multimedia server for using a multimedia system, the multimedia server comprises:

tuning module operably coupled to receive a plurality of
 5 channels from a multimedia source and to select a set of
 channels from the plurality of channels based on a set of
 channel select commands that is derived from select
 requests;

10 channel mixer operably coupled to mix the set of channels
 into a stream of channel data; and

transceiving module operably coupled to transmit the stream
 of channel data on to a communication path and to receive
 15 the select requests from at least one client module
 affiliated with at least one of a plurality of clients.

21. The multimedia server of claim 20 further comprises:

20 control module operably to the tuning module, the channel
 mixer, and the transceiving module, wherein the control
 module interprets the select requests to produce the set of
 channel select commands, wherein the control module
 facilitates formatting the stream of channel data for

transmission via the transceiving module, and wherein the control module facilitates deformatting of the select requests.

- 5 22. The multimedia server of claim 21, wherein the communication path comprises at least one of:

wireline connection, wherein the stream of channel data and the select requests are transceived via the wireline
 10 connection utilizing a type of transceiving that includes at least one of: time division multiplexing, frequency division multiplexing, pulse code modulation, amplitude shift keying, phase shift keying, quadrature phase shift keying, quadrature amplitude modulation, carrier sense
 15 multi-access (CSMA), CSMA with collision avoidance, and CSMA with collision detection;

- transmit wireline connection, wherein the stream of channel data is transmitted via the transmit wireline connection
 20 utilizing a type of transmission that includes at least one of: time division multiplexing, frequency division multiplexing, pulse code modulation, amplitude shift keying, phase shift keying, quadrature phase shift keying, quadrature amplitude modulation, carrier sense multi-access

(CSMA), CSMA with collision avoidance, and CSMA with collision detection;

receive wireline connection, wherein the select requests
 5 are received via the receive wireline connection utilizing
 a type of reception that includes at least one of: time
 division multiplexing, frequency division multiplexing,
 pulse code modulation, amplitude shift keying, phase shift
 keying, quadrature phase shift keying, quadrature amplitude
 10 modulation, carrier sense multi-access (CSMA), CSMA with
 collision avoidance, and CSMA with collision detection;

radio frequency path, wherein the stream of channel data
 and the select requests are transceived via the radio
 15 frequency path utilizing the type of transceiving;

transmit radio frequency path, wherein the stream of
 channel data is transmitted via the transmit radio
 frequency path utilizing the type of transmission;

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receive radio frequency path, wherein the select requests
 are received via the receive radio frequency path utilizing
 the type of reception;

infrared path, wherein the stream of channel data and the select requests are transceived via the infrared path utilizing the type of transceiving;

- 5 transmit infrared path, wherein the stream of channel data is transmitted via the transmit infrared path utilizing the type of transmission; and

- 10 receive infrared path, wherein the select requests are received via the receive infrared path utilizing the type of reception.

23. The multimedia server of claim 22, wherein the transceiving module further comprises, when the
15 communication path includes the wireline connection:

- router operably coupled to the channel mixer, to the tuning module, to the control module, to the client module via the wireline connection, and to the at least one of the
20 plurality of clients via the wireline connection,

wherein the control module formats the stream of channel data based on the type of transceiving to produce formatted channel data,

wherein the router provides the formatted channel data to the at least one of the plurality of clients during transmitting intervals on the wireline connection,

5 wherein the client module causes the select requests to be formatted based on the type of transceiving to produce formatted select requests,

wherein the router receives the formatted select requests via the wireline connection during receiving intervals on the wireline connection, and

10 wherein the control module determines the transmitting intervals and the receiving intervals.

24. The multimedia server of claim 22, wherein the transceiving module further comprises, when the communication path includes the transmit wireline connection:

transmission router operably coupled to the control module and the channel mixer,

20 wherein the control module causes the stream of channel data to be formatted based on the type of transmission to produce formatted channel data, and

wherein the transmission router provides the formatted channel data to the at least one of the plurality of clients.

5 25. The multimedia server of claim 22, wherein the transceiving module further comprises, when the communication path includes the receive wireline connection:

10 reception router operably coupled to the control module,
wherein the client module formats at least one of: the select requests and inbound data based on the type of reception to produce formatted reception data, and
wherein the reception router receives the formatted
15 reception data via the wireline connection.

26. The multimedia server of claim 22, wherein the transceiving module further comprises, when the communication path includes the radio frequency path:

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radio frequency transceiving switch operably coupled to the channel mixer, to the tuning module, to the control module, to the client module via the radio frequency path, and to

the at least one of the plurality of clients via the radio frequency path,

wherein the control module causes the stream of channel data to be formatted based on the type of

5 transceiving to produce formatted channel data,

wherein the radio frequency transceiving switch provides the formatted channel data to the at least one of the plurality of clients during transmitting intervals on the radio frequency path,

10 wherein the client module formats the select requests based on the type of transceiving to produce formatted select requests,

wherein the radio frequency transceiving switch receives the formatted select requests via the radio frequency path during receiving intervals on the radio frequency path, and

wherein the control module determines the transmitting intervals and the receiving intervals.

20 27. The multimedia server of claim 22, wherein the transceiving module further comprises, when the communication path includes the transmit radio frequency path:

radio frequency transmitting switch operably coupled to the control module and the channel mixer,

wherein the control module causes the stream of channel data to be formatted based on the type of transmission to produce formatted channel data,

wherein the radio frequency transmitting switch provides the formatted channel data to the at least one of the plurality of clients via the transmit radio frequency path.

28. The multimedia server of claim 22, wherein the transceiving module further comprises, when the communication path includes the receive radio frequency path:

radio frequency receiving switch operably coupled to the control module,

wherein the client module formats at least one of: the select requests and inbound data based on the type of reception to produce formatted reception data, and

wherein the radio frequency receiving switch receives the formatted reception data via the receive radio frequency path.

29. The multimedia server of claim 22, wherein the transceiving module further comprises, when the communication path includes the infrared path:

5 infrared transceiving switch operably coupled to the channel mixer, to the tuning module, to the control module, to the client module via the infrared path, and to the at least one of the plurality of clients via the infrared path,

10 wherein the control module causes the stream of channel data to be formatted based on the type of transceiving to produce formatted channel data,

 wherein the infrared transceiving switch provides the formatted channel data to the at least one of the plurality
15 of clients during transmitting intervals on the infrared path,

 wherein the client module causes the select requests to be formatted based on the type of transceiving to produce formatted select requests,

20 wherein the infrared transceiving switch receives the formatted select requests via the infrared path during receiving intervals on the infrared path, and

 wherein the control module determines the transmitting intervals and the receiving intervals.

30. The multimedia server of claim 22, wherein the transceiving module further comprises, when the communication path includes the transmit infrared path:

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infrared transmitting switch operably coupled to the control module and the channel mixer,

wherein the control module formats the stream of channel data based on the type of transmission to produce formatted channel data,

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wherein the infrared transmitting switch provides the formatted channel data to the at least one of the plurality of clients via the transmit infrared path.

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31. The multimedia server of claim 22, wherein the transceiving module further comprises, when the communication path includes the receive infrared path:

infrared receiving switch operably coupled to the control module,

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wherein the client module formats at least one of: the select requests and inbound data based on the type of reception to produce formatted reception data, and

wherein the infrared receiving switch receives the formatted reception data via the receive infrared path.

32. The multimedia server of claim 21, wherein the control
5 module further comprises:

host processor, external I/O bus, host memory, memory
bridge interoperably coupled to provide server control
operations, wherein the server control operations include:
10 interpreting the select requests to produce the set of
channel select commands; and
coordinating the mixing of the set of channels, formatting
of the stream of channel data and transmitting the
formatted channel data, such that a client of the plurality
15 of clients receives appropriate requested data.

33. The multimedia server of claim 32, wherein the control
module further comprises:

20 hard drive operably coupled to store at least a portion of
the stream of data.

34. The multimedia server of claim 21, wherein the control
module further comprises:

means for processing client access privileges for each of the plurality of clients.

5 35. The multimedia server of claim 20, wherein the transceiving module further comprises:

an analog multiplexor for converting the stream of channel
data into analog signals, wherein the analog signals are
10 transmitted to the at least one of the plurality of clients.

36. The multimedia server of claim 20 further comprises:

15 second transceiving module operably coupled to transmit the stream of channel data via a second communication path.

37. The multimedia server of claim 20, wherein the transceiving module further comprises:

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encoder operably coupled to encode the stream of data prior to transmitting the stream of channel data, wherein the encoder encodes the stream of data based on at least one

of: multilevel encoding; non return to zero (NRZ) encoding; Manchester encoding; block encoding; and nB/mB encoding, where $n < m$.

38. A method for providing multimedia services to a local area network, the method comprises:

receiving a plurality of channels from at least one

5 multimedia source;

receiving select requests from at least one client module via a communication path;

10 generating a set of channel select commands from the select requests;

selecting a set of channels from the plurality of channels based on the set of channel select commands;

15 mixing the set of channels into a stream of channel data; and

transmitting the stream of channel data on to the
20 communication path such that at least one of a plurality of clients receives at least a portion of the stream of channel data.

39. The method of claim 38 further comprises:

interpreting the select requests to produce the set of
channel select commands;

- 5 formatting the stream of channel data for transmission via
the transceiving module;

deformatting of the select requests as part of generating
the set of channel select commands.

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40. The method of claim 38, wherein the communication path
comprises at least one of:

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wireline connection, wherein the stream of channel data and
the select requests are transceived via the wireline
connection utilizing a type of transceiving that includes
at least one of: time division multiplexing, frequency
division multiplexing, pulse code modulation, amplitude
shift keying, phase shift keying, quadrature phase shift

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keying, quadrature amplitude modulation, carrier sense
multi-access (CSMA), CSMA with collision avoidance, and
CSMA with collision detection;

transmit wireline connection, wherein the stream of channel data is transmitted via the transmit wireline connection utilizing a type of transmission that includes at least one of: time division multiplexing, frequency division

5 multiplexing, pulse code modulation, amplitude shift keying, phase shift keying, quadrature phase shift keying, quadrature amplitude modulation, carrier sense multi-access (CSMA), CSMA with collision avoidance, and CSMA with collision detection;

10 receive wireline connection, wherein the select requests are received via the receive wireline connection utilizing a type of reception that includes at least one of: time division multiplexing, frequency division multiplexing,

15 pulse code modulation, amplitude shift keying, phase shift keying, quadrature phase shift keying, quadrature amplitude modulation, carrier sense multi-access (CSMA), CSMA with collision avoidance, and CSMA with collision detection;

20 radio frequency path, wherein the stream of channel data and the select requests are transceived via the radio frequency path utilizing the type of transceiving;

transmit radio frequency path, wherein the stream of channel data is transmitted via the transmit radio frequency path utilizing the type of transmission;

- 5 receive radio frequency path, wherein the select requests are received via the receive radio frequency path utilizing the type of reception;

- 10 infrared path, wherein the stream of channel data and the select requests are transceived via the infrared path utilizing the type of transceiving;

- 15 transmit infrared path, wherein the stream of channel data is transmitted via the transmit infrared path utilizing the type of transmission; and

receive infrared path, wherein the select requests are received via the receive infrared path utilizing the type of reception.

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41. The method of claim 40 further comprises, when the communication path includes the wireline connection:

formatting the stream of channel data based on the
 type of transceiving to produce formatted channel data,
 providing the formatted channel data to the at least
 one of the plurality of clients during transmitting

5 intervals on the wireline connection,

receiving formatted select requests via the wireline
 connection during receiving intervals on the wireline
 connection, wherein the client module formats the select
 requests based on the type of transceiving; and

10 determining the transmitting intervals and the
 receiving intervals.

42. The method of claim 40 further comprises, when the
 communication path includes the transmit wireline

15 connection:

formatting the stream of channel data based on the
 type of transmission to produce formatted channel data, and
 providing the formatted channel data to the at least
 20 one of the plurality of clients.

43. The method of claim 40 further comprises, when the
 communication path includes the receive wireline
 connection:

receiving formatted reception data via the wireline connection, wherein the client module formats at least one of: the select requests and inbound data based on the type
 5 of reception to produce formatted reception data.

44. The method of claim 40 further comprises, when the communication path includes the radio frequency path:

10 formatting the stream of channel data based on the type of transceiving to produce formatted channel data;
 providing the formatted channel data to the at least one of the plurality of clients during transmitting intervals on the radio frequency path;

15 receiving formatted select requests via the radio frequency path during receiving intervals on the radio frequency path, wherein the client module formats the select requests based on the type of transceiving to produce the formatted select requests; and

20 determining the transmitting intervals and the receiving intervals.

45. The method of claim 40 further comprises, when the communication path includes the transmit radio frequency path:

5 formatting the stream of channel data based on the type of transmission to produce formatted channel data; and
providing the formatted channel data to the at least one of the plurality of clients via the transmit radio frequency path.

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46. The method of claim 40 further comprises, when the communication path includes the receive radio frequency path:

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receiving formatted reception data via the receive radio frequency path, wherein the client module formats at least one of: the select requests and inbound data based on the type of reception to produce the formatted reception data.

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47. The method of claim 40 further comprises, when the communication path includes the infrared path:

formatting the stream of channel data based on the type of transceiving to produce formatted channel data;

providing the formatted channel data to the at least one of the plurality of clients during transmitting

5 intervals on the infrared path;

receiving formatted select requests via the infrared path during receiving intervals on the infrared path, wherein the client module formats the select requests based on the type of transceiving to produce the formatted select

10 requests; and

determining the transmitting intervals and the receiving intervals.

48. The method of claim 40 further comprises, when the

15 communication path includes the transmit infrared path:

formatting the stream of channel data based on the type of transmission to produce formatted channel data; and

20 providing the formatted channel data to the at least one of the plurality of clients via the transmit infrared path.

49. The method of claim 40 further comprises, when the communication path includes the receive infrared path:

receiving formatted reception data via the receive
5 infrared path, wherein the client module formats at least one of: the select requests and inbound data based on the type of reception to produce the formatted reception data.

50. The method of claim 38 further comprises;

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interpreting the select requests to produce the set of channel select commands; and

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coordinating the mixing of the set of channels, formatting of the stream of channel data and transmitting the formatted channel data, such that a client of the plurality of clients receives appropriate requested data.

51. The method of claim 38 further comprises:

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storing at least a portion of the stream of data on a hard drive.

52. The method of claim 38 further comprises:

processing client access privileges for each of the plurality of clients.

5 53. The method of claim 38 further comprises:

converting the stream of channel data into analog signals,
wherein the analog signals are transmitted to the at least
one of the plurality of clients.

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54. The method of claim 38 further comprises:

transmitting the stream of channel data via a second
communication path.

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55. The method of claim 38, wherein transmitting the
stream of channel data on to the communication path further
comprises:

20 encoding the stream of data prior to transmitting the
stream of channel data, wherein the encoding of the stream
of data is based on at least one of: multilevel encoding;
non return to zero (NRZ) encoding; Manchester encoding;
block encoding; and nB/mB encoding, where $n < m$.

56. An apparatus for providing multimedia services to a local area network, the apparatus comprises:

processing module; and

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memory operably coupled to the processing module, wherein the memory stores operational instructions that cause the processing module to:

10 receive a plurality of channels from at least one multimedia source;

receive select requests from at least one client module via a communication path;

15 generate a set of channel select commands from the select requests;

20 select a set of channels from the plurality of channels based on the set of channel select commands;

mix the set of channels into a stream of channel data; and

transmit the stream of channel data on to the communication path such that at least one of a plurality of clients receives at least a portion of the stream of channel data.

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57. The apparatus of claim 56, wherein the memory further comprises operational instructions that cause the processing module to:

10 interpret the select requests to produce the set of channel select commands;

formatting the stream of channel data for transmission via the transceiving module; and

15 deformatting of the select requests as part of generating the set of channel select commands.

58. The apparatus of claim 56, wherein the communication
20 path comprises at least one of:

wireline connection, wherein the stream of channel data and the select requests are transceived via the wireline connection utilizing a type of transceiving that includes

at least one of: time division multiplexing, frequency
 division multiplexing, pulse code modulation, amplitude
 shift keying, phase shift keying, quadrature phase shift
 keying, quadrature amplitude modulation, carrier sense
 5 multi-access (CSMA), CSMA with collision avoidance, and
 CSMA with collision detection;

transmit wireline connection, wherein the stream of channel
 data is transmitted via the transmit wireline connection
 10 utilizing a type of transmission that includes at least one
 of: time division multiplexing, frequency division
 multiplexing, pulse code modulation, amplitude shift
 keying, phase shift keying, quadrature phase shift keying,
 quadrature amplitude modulation, carrier sense multi-access
 15 (CSMA), CSMA with collision avoidance, and CSMA with
 collision detection;

receive wireline connection, wherein the select requests
 are received via the receive wireline connection utilizing
 20 a type of reception that includes at least one of: time
 division multiplexing, frequency division multiplexing,
 pulse code modulation, amplitude shift keying, phase shift
 keying, quadrature phase shift keying, quadrature amplitude

modulation, carrier sense multi-access (CSMA), CSMA with collision avoidance, and CSMA with collision detection;

radio frequency path, wherein the stream of channel data

- 5 and the select requests are transceived via the radio frequency path utilizing the type of transceiving;

transmit radio frequency path, wherein the stream of

channel data is transmitted via the transmit radio

- 10 frequency path utilizing the type of transmission;

receive radio frequency path, wherein the select requests

are received via the receive radio frequency path utilizing the type of reception;

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infrared path, wherein the stream of channel data and the select requests are transceived via the infrared path utilizing the type of transceiving;

- 20 transmit infrared path, wherein the stream of channel data is transmitted via the transmit infrared path utilizing the type of transmission; and

receive infrared path, wherein the select requests are received via the receive infrared path utilizing the type of reception.

5 59. The apparatus of claim 58, wherein the memory further comprises operation instructions that cause the processing module to, when the communication path includes the wireline connection:

10 format the stream of channel data based on the type of transceiving to produce formatted channel data,

provide the formatted channel data to the at least one of the plurality of clients during transmitting intervals on the wireline connection,

15 receive formatted select requests via the wireline connection during receiving intervals on the wireline connection, wherein the client module formats the select requests based on the type of transceiving; and

determine the transmitting intervals and the receiving
20 intervals.

60. The apparatus of claim 58, wherein the memory further comprises operation instructions that cause the processing

module to, when the communication path includes the
transmit wireline connection:

format the stream of channel data based on the type of
5 transmission to produce formatted channel data, and
provide the formatted channel data to the at least one
of the plurality of clients.

61. The apparatus of claim 58, wherein the memory further
10 comprises operation instructions that cause the processing
module to, when the communication path includes the receive
wireline connection:

receive formatted reception data via the wireline
15 connection, wherein the client module formats at least one
of: the select requests and inbound data based on the type
of reception to produce formatted reception data.

62. The apparatus of claim 58, wherein the memory further
20 comprises operation instructions that cause the processing
module to, when the communication path includes the radio
frequency path:

format the stream of channel data based on the type of transceiving to produce formatted channel data;

provide the formatted channel data to the at least one of the plurality of clients during transmitting intervals

5 on the radio frequency path;

receive formatted select requests via the radio frequency path during receiving intervals on the radio frequency path, wherein the client module formats the select requests based on the type of transceiving to

10 produce the formatted select requests; and

determine the transmitting intervals and the receiving intervals.

63. The apparatus of claim 58, wherein the memory further

15 comprises operation instructions that cause the processing module to, when the communication path includes the transmit radio frequency path:

format the stream of channel data based on the type of transmission to produce formatted channel data; and

provide the formatted channel data to the at least one of the plurality of clients via the transmit radio frequency path.

64. The apparatus of claim 58, wherein the memory further comprises operation instructions that cause the processing module to, when the communication path includes the receive radio frequency path:

5

receive formatted reception data via the receive radio frequency path, wherein the client module formats at least one of: the select requests and inbound data based on the type of reception to produce the formatted reception data.

10

65. The apparatus of claim 58, wherein the memory further comprises operation instructions that cause the processing module to, when the communication path includes the infrared path:

15

format the stream of channel data based on the type of transceiving to produce formatted channel data;

provide the formatted channel data to the at least one of the plurality of clients during transmitting intervals on the infrared path;

20

receive formatted select requests via the infrared path during receiving intervals on the infrared path, wherein the client module formats the select requests based

on the type of transceiving to produce the formatted select requests; and

determine the transmitting intervals and the receiving intervals.

5

66. The apparatus of claim 58, wherein the memory further comprises operation instructions that cause the processing module to, when the communication path includes the transmit infrared path:

10

format the stream of channel data based on the type of transmission to produce formatted channel data; and

provide the formatted channel data to the at least one of the plurality of clients via the transmit infrared path.

15

67. The apparatus of claim 58, wherein the memory further comprises operation instructions that cause the processing module to, when the communication path includes the receive infrared path:

20

receive formatted reception data via the receive infrared path, wherein the client module formats at least one of: the select requests and inbound data based on the type of reception to produce the formatted reception data.

68. The apparatus of claim 56, wherein the memory further comprises operation instructions that cause the processing module to:

5

interpret the select requests to produce the set of channel select commands; and

coordinate the mixing of the set of channels, formatting of
10 the stream of channel data and transmitting the formatted channel data, such that a client of the plurality of clients receives appropriate requested data.

69. The apparatus of claim 56, wherein the memory further
15 comprises operation instructions that cause the processing module to:

store at least a portion of the stream of data on a hard drive.

20

70. The apparatus of claim 56, wherein the memory further comprises operation instructions that cause the processing module to:

process client access privileges for each of the plurality of clients.

71. The apparatus of claim 56, wherein the memory further
5 comprises operation instructions that cause the processing module to:

convert the stream of channel data into analog signals,
wherein the analog signals are transmitted to the at least
10 one of the plurality of clients.

72. The apparatus of claim 56, wherein the memory further
comprises operation instructions that cause the processing
module to:

15 transmit the stream of channel data via a second communication path.

73. The apparatus of claim 56, wherein the memory further
20 comprises operation instructions that cause the processing module to:

encode the stream of data prior to transmitting the stream of channel data, wherein the encoding of the stream of data

